APR/FY06

WEST POINT MILITARY RESERVATION

New York

Army Defense Environmental Restoration Program
Installation Action Plan

Final 14 September 2006

Table of Contents

Table of Contents

Statement of Purpose

The purpose of the Installation Action Plan (IAP) is to outline the total multi-year Cleanup Program for an installation. The plan identifies environmental cleanup requirements at each site or area of concern, and proposes a comprehensive, installation-wide approach, with associated costs and schedules, to conduct investigations and necessary remedial actions.

In an effort to coordinate planning information between the restoration manager, US Army Environmental Center (USAEC), United States Army Garrison at West Point and the New York State Department of Environmental Conservation (NYSDEC), an IAP was completed. The IAP is used to track requirements, schedules and tentative budgets for all Army installation cleanup programs.

All site-specific funding and schedule information has been prepared according to projected overall Army funding levels and is, therefore, subject to change.

The following agencies contributed to the formulation and completion of this Installation Action Plan during a planning workshop held on 18 April 2006:

Engineering & Environment, Inc. for USAEC

NYSDEC

USAEC

USMA-DPW-EEB

USMA-EMD

Acronyms & Abbreviations

AEDB-R	Army Environmental Database - Restoration
ASP	Ammunition Storage Point
BD	Blanket Drains
BRAC	Base Realignment and Closure
CC	Compliance-Related Cleanup
CERCLA	Comprehensive Environmental Response Compensation and Liability Act (1980)
CMI (C)	Corrective Measures Implementation (Construction)
CMI (O)	Corrective Measures Implementation (Operation)
CMS	Corrective Management Study
CS	Corrective Study
CTC	Cost-to-Complete
CTT	Closed Transferring and Transferred
DD	Decision Document
DES	Design
DPW	Department of Public Works
ER,A	Environmental Restoration, Army
FS	Feasibility Study
FUDS	Formerly Used Defense Sites
FY	Fiscal Year
GSA	General Services Administration
HRR	Historical Records Review
HSWA	Hazardous and Solid Waste Amendments
IAP	Installation Action Plan
IRA	Interim Remedial Action
IRP	Installation Restoration Program
LTM	Long-Term Management
MACOM	Major Command
MC	Munitions Constituents
MEC	Munitions and Explosives of Concern
MMRP	Military Munitions Response Program
MW	Monitoring Well
NPL	National Priorities List
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation
OB/OD	Open Burning/Open Detonation
OE	Ordnance and Explosives
OEW	Ordnance and Explosive Waste
PA	Preliminary Assessment
POL	Petroleum, Oil, Lubricants
PX	Post Exchange
PY	Prior Year
RA	Remedial Action
RA(C)	Remedial Action (Construction)
RA(O)	Remedial Action (Operation)

Acronyms & Abbreviations

RAB	Restoration Advisory Board
RC	Response Complete
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
REM	Removal
RFA	RCRA Facility Agreement
RI	Remedial Investigation
RIP	Remedy-in-Place
RFI	RCRA Facility Investigation
ROD	Record of Decision
RRSE	Relative Risk Site Evaluation
SI	Site Inspection
STAS	Stewart Army Subpost
STR	Skeet and Trap Range
SWMU	Solid Waste Management Unit
TAPP	Technical Assistance for Public Participation
TRC	Technical Review Committee
USACE	US Army Corps of Engineers
USAEC	US Army Environmental Center
USAEHA	US Army Environmental Hygiene Agency (now CHPPM)
USCG	US Coast Guard
USACHPPM	US Army Center for Health Promotion and Preventive Medicine
USEPA	US Environmental Protection Agency
USMA	US Military Academy- West Point
UST	Underground Storage Tank
UXO	Unexploded Ordnance
WSTPT	West Point Military Reservation - AEDB-R Abbreviation

Installation Information

Installation Locale: The West Point Military Reservation (WSTPT) is located in Orange County in the state of New York, on the west bank of the Hudson River approximately 45 miles north of New York City. The military reservation at West Point consists of 15,974 acres, with the main post comprising 2,520 acres. It is bounded by New York State Route 218, the Hudson River, the Village of Highland Falls and US Route 9W. West Point is crossed by the Hudson Highlands, a belt of steep-walled knobbed ridges, irregular hills and mountains. WSTPT is a registered National Historic Landmark.

Installation Mission: To educate, train and inspire the Corps of Cadets so that each graduate is a commissioned leader of character committed to the values of Duty, Honor, Country and prepared for a career of professional excellence and service to the Nation as an officer in the United States Army.

Lead Organization:
Installation Management Agency – Northeast Regional Office

Lead Executing Agencies:
- US Army Military Academy, Directorate of Public Works/Environmental Division
- Installation Management Agency Northeast Region
- US Army Environmental Center

Regulator participation:
Federal: US Environmental Protection Agency, Region II
State: NYS Department of Environmental Conservation (NYSDEC) Central Office in Albany, New York

National Priorities List (NPL) Status: Not on NPL

Installation Restoration Advisory Board (RAB)/Technical Review Committee (TRC)/Technical Assistance for Public Participation (TAPP) Status: A Community Relations Council and residential Mayor's meetings have been established. The availability of these two operating public forums and the limited remedial actions planned at USMA limit the need to establish a RAB at West Point.

Installation Program Summaries
IRP
Primary Contaminants of Concern: Petroleum/Oil/Lubricants, Heavy Metals
Affected Media of Concern: Soil, Groundwater
Estimated Date for Response Complete (RC): 2002
Funding to Date: (up to FY05): $15,627K
Current year funding (FY06): $261K
Cost-to-Complete (FY07+): $8,609K

MMRP

Primary Contaminants of Concern: MEC, MC
Affected Media of Concern: Soil
Estimated Date for RC: 2014
Funding to date (up to FY05): $474K
Current year funding (FY06): $0K
Cost-to-Complete (2007+): $16,088K

Cleanup Program Summary

Installation Historic Activity

The United States Military Academy-West Point (USMA) is an active US Army Installation (MACOM). The USMA was officially established at West Point on 16 March 1802. The initial purpose of the Academy was to obtain military technicians for all branches of the military service, to encourage the study of military art nationally, raise the level of training of the militia and to encourage the practical study of every science.

Lands formerly known as Stewart Army Subpost (STAS), are located approximately 14 miles northwest of the USMA, Orange County, Town of New Windsor, New York. STAS provided overflow family housing for West Point and included facility and community support to residents and tenants. STAS divestiture, as follows: a) 19 Nov 99, USMA transferred 263.86 acres to the Town of New Windsor, Orange County, New York; b) 29 Sep 99, USMA transferred 40.4 acres to the 77th Regional Support Command (Army Reserve); c) 3 Feb 00, USMA transferred 78.63 acres & 11.69 acres (easement) to the United States Marine Corps Reserve Mag 49, Det B.

In 1961, West Point was designated a National Historical Landmark included in the National Register of Historic Places and protected by Executive Order 11593.

IRP

- Prior Year Progress: In FY05, LTM of the landfills was continued to include the fifth year of groundwater monitoring, repair and maintenance of landfill caps and monitoring wells, cleaning of drainage swales and repair to leachate collection systems. A 5-year data review and evaluation is being performed.
- Future Plan of Action: Meet with the NYSDEC and review 5-year Data Evaluation Report. Discuss reducing sampling frequency and time-frame for sites' closure (e.g., discontinue sampling).

MMRP

- Prior Year Progress: The Army's Closed, Transferring, and Transferred (CTT) Range Inventory Program began in 2001 to identify old ranges to be cleaned up in the MMRP. The West Point CTT Inventory was completed in 2004 and identified several sites eligible for the MMRP. In January 2005 West Point received a draft Historical Records Review (HRR) that was a more in depth study of the sites identified in the CTT inventory. Sites identified in the report include property controlled by West Point, Palisades Interstate Park, Town of Phillipstown, and the Hudson River.

- Future Plan of Action: The USAEC has notified West Point that the MMRP Site Inspection has been funded in FY05.

WEST POINT MILITARY RESERVATION

Installation Restoration Program

IRP Summary

Total AEDB-R IRP Sites/AEDB-R sites with Response Complete: 29/14

Different Site Types:

1 Firing Range	2 USTs
25 Landfills	1 Unexploded Munitions/Ordnance

Most Widespread Contaminants of Concern: Petroleum/Oils/Lubricants, Heavy Metals

Media of Concern Groundwater, Soil

Completed Removal (REM)/Interim Remedial Action (IRA)/Remedial Action (RA):

REM - UST removals (FY94) (WSTPT-49, $50K)
IRA - Install Leachate Collection Systems at 3 Landfills (FY98)
IRA - Consolidate 2 Landfills (FY95-6 WSTPT-15A, $475K)+(FY97-98, WSTPT-13, $315K)
IRA - Landfill drainage improvements (FY96) (WSTPT - 7a + 10, $140K)
IRA - Upgrade Leachate Collection Systems (FY96) (WSTPT - 7a +10, $100K)
CMI - Install Cap at Post School (FY 97) (WSTPT-10, $362K)
CMI - Install Cap and Drainage (FY 98-99) (WSTPT-4, 6 & 7a, $1,247K)
CMI - Install Cap and Drainage (FY 99, WSTPT-9, $167K)+(FY 99, WSTPT-11, $1,410K)
CMI - Install Cap and Drainage (FY 00, WSTPT-9, $301K)+(FY 00,WSTPT-11a, $539K)
CMI - Install Cap/Leachate Collection (FY 01, WSTPT-9 & 10, 30K + 146K)
CMI - Install Cap and Drainage (FY 02, WSTPT-2 & 3, $538K)

Total IRP Funding

Prior years (up to FY05):	$15,627K
Current year funding (FY06):	$ 261K
Future Requirements (FY07+):	$ 8,609K
Total:	**$24,497K**

Duration of IRP

Year of IRP Inception: 1991
Year of IRP RC: 2002
Year of IRP Completion (including Long-Term Management): 2029

IRP Contamination Assessment Overview

In November 1988, the USMA submitted a RCRA Part B permit application to the USEPA for hazardous waste storage and a Subpart X permit for an open burn/open detonation (OB/OD) site. USMA is considered a large quantity generator of hazardous waste. Accumulated hazardous waste is moved to a central storage area where it is staged prior to shipment for up to 90 days. In December 1988, the application for the container storage facility was rescinded by USMA and the container storage sites underwent closure inspection and testing by the USEPA under "Closure Prior to Loss of Interim Status." Although the Part B permit had been rescinded, the Corrective Action provisions remain per the 1984 Hazardous and Solid Waste Amendments (HSWA) Section 3004 (h). Therefore, USMA remains under interim status while LTM is being conducted.

In November 1990, the US Army Environmental Hygiene Agency (USAEHA) (now USACHPPM) conducted a survey of Solid Waste Management Units (SWMUs) at USMA pursuant to RCRA corrective action requirements. The USAEHA survey identified 16 inactive landfills at USMA. USMA subsequently identified four additional inactive landfills. The landfills are all under LTM.

In 1991, a Preliminary Assessment was initiated prior to the replacement of a natural gas line that crossed the Crow's Nest area of Storm King Mountain. Research for the project revealed that the Crow's Nest area was a former artillery impact area. The project to replace the gas line was terminated following the discovery of ordnance and explosive waste (OEW) along the proposed gas line. A Remedial Investigation (limited surface sweep) discovered 75 suspect OEW, 15 of which were on adjacent park property. The Army Safety Office assigned the site a RAC 2 ranking which dropped its priority on the IRP Workplan.

In 1992, four known abandoned tanks located at West Point were added to the inventory of abandoned tanks (WSTPT-46) slated for locating and removal at STAS. In 1992, an investigation was initiated to assess the impact of lead deposition in a wetland from a formerly used Skeet and Trap Range (STR) at Camp Buckner.

Cragston Landfill (WSTPT-14) is a sanitary landfill undergoing RCRA Subtitle D closure outside the IRP. The South Fill (WSTPT-12), Hospital Parking Lot (WSTPT-23A) and the Stadium Lots G (WSTPT-07B) and H (WSTPT-07C) landfills are listed on the AEDB-R database but no further response action is planned, since records indicate they were used for clean construction and demolition debris and no releases are evident.

Description of Major IRP Concerns

USMA has 29 sites (14 of the sites listed under AEDB-R are not active) grouped into 6 projects under the IRP. Landfills account for 20 of these sites. These landfills were used from the 1940s to 1980s for the disposal of municipal solid waste, construction and demolition debris and land clearing debris. Analytical results for the leachate samples from several of the landfills have exhibited heavy metals constituents. The other projects

include: a former STR located in the Camp Buckner wetlands where lead deposits were of concern (WSTPT-44); a former impact area at Crow's Nest where OEW is present (WSTPT-45); and the closure of several abandoned underground storage tanks (USTs) (WSTPT- 46 and 47).

IRP Cleanup Exit Strategy

Complete fifth year of LTM. Complete required five-year review of data-evaluation report with NYSDEC. Propose reduced sampling frequency and time-frame for sites' closure (e.g., discontinue sampling).

Previous Studies

1994

- Subsurface Investigation Report of 6 Landfills, LAW Engineering and Environmental Services, Jul
- Draft Work Plan and Chemical Data Acquisition Plan, RCRA Facility Assessment of Ten Landfills, Woodward Clyde Federal Services, Jan

1995

- RCRA Facility Assessment (RFA) of Ten Landfills Report, Woodward Clyde Federal Services, Jun
- Remedial Investigation at Building 2228 Fuelling Facility, EA Engineering, Science and Technology, Aug
- Project Plans for the Phase II Remedial Investigation and Leachate Management Analysis of Six Landfills, EA Engineering, Science and Technology, Jun
- Project Plans for Expanded RCRA Facility Assessment of Four Landfills, EA Engineering, Science and Technology, Mar

1996

- Expanded RCRA Facility Assessment of Four Landfills, EA Engineering, Science and Technology, Sep
- Phase II Investigation Report of Six Landfills, EA Engineering, Science and Technology, Aug
- Design Concept for Post School Landfill Closure, Malcolm Pirnie, Inc., Oct
- Phase II Leachate Management Analysis of Six Landfills, EA Engineering, Science and Technology, Aug
- Quality Control Summary Report of Four Landfills, EA Engineering, Science and Technology, Sep
- Quality Control Summary Report of Six Landfills, EA Engineering, Science and Technology, Aug
- Decision Document Camp Buckner Skeet and Trap Range, EA Engineering, Science and Technology, Jan
- USMA Landfill Remediation Contract No. DACAW45-94-D-0054 Delivery Order No. 19, IT Corporation, Sep

1997

- RCRA Facility Investigation of Ten Landfills, Malcolm Pirnie, Inc., Jun
- Post School Landfill Closure Design, Design Analysis Report, Malcolm Pirnie, Inc., Jul
- Decision Document for the Village Farm Landfill, DHPW EMD, Apr
- Post School Landfill Closure Design Contract Specifications, Malcolm Pirnie, Inc., Jul

1998

- Design Analysis Report for Michie Stadium Parking Lot Landfills (C, E & F), Louis Berger & Associates, Inc., Jul
- Contract Specifications for Michie Stadium Parking Lot Landfills (C, E & F), Malcolm Pirnie, Inc., Jul
- Design Analysis Report for Michie Stadium Parking Lot Landfills (C, E & F), Malcolm Pirnie, Inc., Jul

1998 (cont.)

- Design Analysis Report for Motor Pool Landfill Closure, EA Engineering, Science and Technology, Aug

1999

- The Final Report Addendum for Village Farm Landfill Remediation, IT Corporation, Jan
- Decision Document for the Motorpool Landfill, DHPW EMD, Jan
- Design Analysis Report Ski Lot Landfill Closure, Sparks, EA Engineering, Science and Technology, Jun
- Design Analysis Report Motor Pool East Landfill Closure, EA Engineering, Science and Technology, Jun
- Decision Document for the Motorpool East Landfill, DHPW EMD, Oct
- Decision Document for the Post School Landfill, DHPW EMD, Jan
- Decision Document for Lots C, E, and F, DHPW EMD, Jan
- Ten Landfills RCRA Facility Investigation Phase II Groundwater Monitoring Draft Final Report, Malcolm Pirnie, Inc., Dec
- 100% Completion Phase Design Analysis Report, Construction Cost Estimate and Contract Specifications for Michie Stadium Parking Lot Landfills (C, E, & F), Feb

2000

- Contract Specifications for Michie Stadium Parking Lot Landfills (C, E, & F), Malcolm Pirnie, Inc., Feb

2001

- Sampling and Analysis Plan for Long-Term Monitoring and Maintenance Program at 15 Landfills, EA Engineering, Science and Technology, Dec

2002

- Decision Document for the 12,000 Gallon UST at STAS, DHPW EMD, Mar
- Data Summary Sheet Report for Year 2001 LTM Maintenance Project at 15 Landfills, EA Engineering, Science and Technology, Mar
- Engineering Inspection Study for the Year 2002 LTM Maintenance Project at 15 Landfills, EA Engineering, Science and Technology, Jun
- Data Summary Sheet Report for Year 2002 LTM Maintenance Project at 15 Landfills, EA Engineering, Science and Technology, Jul

2003

- USMA Installation Action Plan, DHPW EMD, Nov
- Data Summary Sheet Report for Year 2003 LTM Maintenance Project at 15 Landfills, EA Engineering, Science and Technology, Jul

WEST POINT MILITARY RESERVATION

Installation Restoration Program Site Descriptions

WSTPT-01
PX LANDFILL

SITE DESCRIPTION

The Post Exchange (PX) Landfill is part of the 10 Landfill Investigation Report and is a 2-3 acre landfill located under the parking lot at the former Post Exchange. This was the installation landfill for domestic waste during the 1940s. The pit and area methods of land filling were used at this location. The landfill is closed, covered and paved. A parking lot and the former PX service station now cover part of the site. Although leachate seeps were observed at this site in the past, recent engineering inspections have detected no seeps.

NYSDEC requested additional sampling of this site in March 1998. The additional sampling was performed and a supplement to the 10 Landfill. Investigation was submitted to NYSDEC in Jan 00. The supplement recommended no further action at the Landfill based on sample results. No decision document was prepared because no remedial action was required. The PX Landfill has been included in USMA's Sampling and Analysis Plan for LTM and maintenance and groundwater sampling is conducted at this site.

STATUS

REGULATORY DRIVER: RCRA, Subtitle C - HW

RRSE: High

CONTAMINANTS OF CONCERN: Metals

MEDIA OF CONCERN: Surface Water, Groundwater

Phases	Start	End
RFA	199011	199104
CS	199208	199506
RFI/CMS	199604	199912
LTM	200109	202906

RC DATE: 199912

CLEANUP STRATEGY

Long-term management will continue. In FY06, USMA will propose to regulators to reduce sampling frequency to every five years. The landfill is scheduled to be resurfaced in FY08.

WSTPT-02
STADIUM LOT A LANDFILL

SITE DESCRIPTION

The Michie Stadium Lot A Landfill is part of the 10 Landfill Investigation Report and is located west of Michie Stadium. This 0.6-acre landfill was used approximately from 1952-1954. The pit and trench methods were used. The landfill is closed and completely paved. A cap and drainage system improvements were constructed in FY02. The site is now used as a parking lot. Although leachate seeps were observed at this site in the past, recent engineering inspections have detected no seeps. Restoration of the landfill cap was completed in FY03.

CLEANUP STRATEGY

Long-term management and cap maintenance will continue. In FY06, USMA will propose to regulators to reduce sampling frequency to every five years.

STATUS

REGULATORY DRIVER: RCRA, Subtitle C - HW

RRSE: High

CONTAMINANTS OF CONCERN : Metals

MEDIA OF CONCERN: Surface Water, Groundwater

Phases	Start	End
RFA	199011	199104
CS	199208	199506
RFI/CMS	199604	199706
DES	199809	200010
CMI(C)	200109	200207
LTM	200208	202906

RC DATE: 200207

WSTPT-03
STADIUM LOT B LANDFILL

SITE DESCRIPTION

WSTPT-03, which was part of the 10 Landfill Project, is located west of Michie Stadium; access is from Stony Lonesome Road. This 0.3-acre landfill reportedly received refuse in 1954. The pit and trench methods were used. The landfill is closed and completely paved. A cap and drainage system improvements were constructed in FY02. The site is now used as a parking lot. Although leachate seeps were observed at this site in the past, recent engineering inspections have detected no seeps. Restoration of the landfill cap was completed in FY03. Drainage swales were cleaned in FY05.

CLEANUP STRATEGY

Long-term management and cap maintenance will continue. In FY06, USMA will propose to regulators to reduce sampling frequency to every five years.

STATUS

REGULATORY DRIVER: RCRA, Subtitle C - HW

RRSE: High

CONTAMINANTS OF CONCERN : Metals

MEDIA OF CONCERN: Groundwater, Surface Water

Phases	Start	End
RFA	199011	199104
CS	199208	199506
RFI/CMS	199604	199706
DES	199809	200010
CMI(C)	200109	200207
LTM	200208	202906

RC DATE: 200207

WSTPT-04
STADIUM LOT C LANDFILL

SITE DESCRIPTION

WSTPT-04 was part of the 10 Landfill Project and is located west of Michie Stadium; access is from Stony Lonesome Road. This 1.6 acre landfill was used approximately between 1955 and 1956. The pit and trench methods were used. The landfill is closed and partially paved. The site is now used as a parking lot. Although leachate seeps have been identified at this site in the past, recent engineering inspections have detected no seeps.

Storm water upgrade project was completed in FY01 to reduce cap deterioration and manage storm water run-off to prevent infiltration of water into the landfill mass. WSTPT-04 has been included in USMA's Sampling and Analysis Plan for Long-term Monitoring and Maintenance and groundwater sampling is conducted at this site.

STATUS

REGULATORY DRIVER: RCRA, Subtitle C - HW

RRSE: High

CONTAMINANTS OF CONCERN : Metals

MEDIA OF CONCERN: Groundwater

Phases	Start	End
RFA	199011	199104
CS	199208	199506
RFI/CMS	199604	199707
DES	199609	200004
CMI(C)	199901	200107
LTM	200109	202906

RC DATE: 200107

CLEANUP STRATEGY

Long-term management and cap maintenance will continue. In FY06, USMA will propose to regulators to reduce sampling frequency to every five years. Cap and drainage systems will be upgraded in FY06.

WSTPT-05
STADIUM LOT D LANDFILL

SITE DESCRIPTION

WSTPT-05, which was part of the 6 Landfill project, is located west of Michie Stadium; access is from Stony Lonesome Road. This 2 acre landfill was active between 1956 and 1958. The pit and trench methods were used. The site is now used as a parking lot. A perimeter drain has been installed. Although leachate seeps have been identified at this site in the past, recent engineering inspections have detected no seeps.

WSTPT-05 has been included in USMA's Sampling and Analysis Plan for Long-term Monitoring and Maintenance and groundwater sampling is conducted at this site.

STATUS

REGULATORY DRIVER: RCRA, Subtitle C - HW

RRSE: Medium

CONTAMINANTS OF CONCERN : Metals

MEDIA OF CONCERN: Groundwater

Phases	Start	End
RFA	199011	199104
CS	199107	199407
RFI/CMS	199408	199608
LTM	200109	202906

RC DATE: 199701

CLEANUP STRATEGY

Long-term monitoring and cap maintenance will continue. A cap upgrade is planned for FY07. In FY06, USMA will propose to regulators to reduce sampling frequency to every five years.

WSTPT-06
STADIUM LOT E LANDFILL

SITE DESCRIPTION

WSTPT-06, which was part of the 10 Landfill Project, is located west of Michie Stadium; access is from Stony Lonesome Road. This 4 acre landfill was used approximately from 1952 - 1954. The pit and trench methods were used. The landfill is closed and completely paved. The site is now used as a parking lot. A cap and drainage system improvements were constructed in FY02. Leachate seeps have been identified at this site in the past and a leachate collection system was installed in FY01. The system will be evaluated for effectiveness.

A cap and drainage improvement design was initiated in FY 96 and was completed in FY99. A Storm Water upgrade project was completed in FY01. WSTPT-06 has been included in USMA's Sampling and Analysis Plan for Long-term Monitoring and Maintenance and groundwater sampling is conducted at this site.

STATUS

REGULATORY DRIVER: RCRA, Subtitle C - HW

RRSE: High

CONTAMINANTS OF CONCERN : Metals

MEDIA OF CONCERN: Groundwater, Surface Water

PHASES	Start	End
RFA	199011	199104
CS	199208	199506
RFI/CMS	199604	199706
DES	199609	200004
CMI(C)	199901	200107
LTM	200109	202906

RC DATE: 200107

CLEANUP STRATEGY

Long-term management and cap maintenance will continue. In FY06, USMA will propose to regulators to reduce sampling frequency to every five years.

WSTPT-07A
STADIUM LOT F LANDFILL

SITE DESCRIPTION

The Michie Stadium Lot F Landfill, which was part of the 6 Landfill Investigation Report, is located southwest of Michie Stadium; access is from Stony Lonesome Road. This three-acre landfill was used primarily in 1965. The pit and trench methods were used. The landfill is closed and paved. A storm water upgrade project was completed in FY01. The site is now used as a parking lot. Leachate seeps have been identified at this site in the past and a leachate collection system was installed in FY01. Leachate seeps investigations and repair of blanket drains (BD-1, BD-2) were completed in FY03. The Michie Stadium Lot F Landfill has been included in USMA's Sampling and Analysis Plan for LTM and maintenance and groundwater sampling is conducted at this site.

The collection system was upgraded in FY04. Now, seeps are breaking out away from the collections system. USMA will evaluate new collection strategy.

STATUS

REGULATORY DRIVER: RCRA, Subtitle C - HW

RRSE: Medium

CONTAMINANTS OF CONCERN : Metals

MEDIA OF CONCERN: Groundwater, Surface Water

Phases	Start	End
RFA	199011	199104
CS	199107	199407
RFI/CMS	199408	199608
DES	199609	200004
IRA	199510	199707
CMI(C)	199901	200107
LTM	200109	202906

RC DATE: 200107

CLEANUP STRATEGY

Long-term management and cap maintenance will continue. In FY06, USMA will propose to regulators to reduce sampling frequency to every five years. In FY06, installation will propose to regulators an "internal" catch basin filtration system for discharge of leachate to stormwater system rather than sanitary system.

WSTPT-09
SKI SLOPE LANDFILL

SITE DESCRIPTION

WSTPT-09, which was part of the 6 Landfill project, is located adjacent to the ski lodge; access is from NYS Route 218. This 0.7 acre landfill was used approximately between 1965 and 1974. The pit and area methods were used for disposal of sanitary and construction wastes. The landfill is closed and completely paved. The site is now used as a parking lot. A leachate collection system was installed in FY00. Sediments in an adjacent stream have been discolored by leachate. Although leachate seeps have been identified at this site in the past, recent engineering inspections have detected no seeps.

A cap and drainage system improvements were constructed and completed in FY01. WSTPT-09 has been included in USMA's Sampling and Analysis Plan for Long-term Monitoring and Maintenance and groundwater sampling is conducted at this site.

STATUS

REGULATORY DRIVER: RCRA, Subtitle C - HW

RRSE: High

CONTAMINANTS OF CONCERN : Metals

MEDIA OF CONCERN: Groundwater, Surface Water

Phases	Start	End
RFA	199011	199104
CS	199107	199407
RFI/CMS	199408	199608
DES	199709	199905
IRA	199604	199604
CMI(C)	200009	200107
LTM	200109	202906

RC DATE: 200107

CLEANUP STRATEGY

Long-term management and cap maintenance will continue. In FY06, USMA will propose to regulators to reduce sampling frequency to every five years.

WSTPT-10
POST SCHOOL LANDFILL

SITE DESCRIPTION

The Post School Landfill, which was part of the 6 Landfill Investigation Report, is located adjacent to the West Point Elementary School. Access is from the school parking lot or Barry Road. This 2.5-acre landfill was used approximately from 1964 - 1969. The pit and area methods were used. The landfill is closed and vegetated. The site is used as a playing field for the school and youth activities center. Although leachate seeps have been identified at this site in the past, recent engineering inspections have detected no seeps.

In 1998, a leachate collection tank was installed and upgraded. Sediments in an adjacent stream have been discolored by leachate. Differential settling and poor drainage had made the field unusable. The perimeter drainage swale and leachate collection system have been upgraded as an interim remedial action. A cap and drainage improvement design was finalized in FY97 and implemented in FY98. The Post School Landfill has been included in USMA's Sampling and Analysis Plan for LTM and maintenance is conducted at this site.

STATUS

REGULATORY DRIVER: RCRA, Subtitle C - HW

RRSE: Medium

CONTAMINANTS OF CONCERN: Metals

MEDIA OF CONCERN: Groundwater, Surface Water

Phases	Start	End
RFA	199011	199104
CS	199107	199407
RFI/CMS	199408	199608
DES	199609	199708
IRA	199603	199604
CMI(C)	199709	199905
LTM	200109	202906

RC DATE: 199905

CLEANUP STRATEGY

Long-term management and cap maintenance will continue. In FY06, USMA will propose to regulators to reduce sampling frequency to every five years.

WSTPT-11
MOTORPOOL LANDFILL

SITE DESCRIPTION

The Motor Pool Landfill, which was part of the 6 Landfill Investigation Report, is located east of the Motor Pool fuel distribution system; access is from Reynolds Road. This 4.5-acre landfill was used approximately from 1964-1969. The pit and fill method was used for disposal of sanitary refuse. The landfill is now used as a parking lot for motor pool vehicles. In FY99, the cap was enhanced and drainage controls were installed.

Leachate seeps have been identified at this site in the past. A leachate collection system was installed in FY01 to remedy a seep down gradient of the landfill. Recent engineering inspections have identified that the seep in the vicinity of monitoring well 95LS-02 has increased and additional investigation into the source of the seep was performed in FY03. The results of the investigation confirmed that the existing leachate collection system was inadequate and a new design was proposed. The Motor Pool Landfill has been included in USMA's Sampling and Analysis Plan for LTM and maintenance and groundwater sampling is conducted at this site.

STATUS

REGULATORY DRIVER: RCRA, Subtitle C - HW

RRSE: Medium

CONTAMINANTS OF CONCERN : Metals, POL

MEDIA OF CONCERN: Groundwater, Surface Water

Phases	Start	End
RFA	199011	199104
CS	199108	199407
RFI/CMS	199408	199807
DES	199709	199808
CMI(C)	199902	200103
LTM	200109	202906

RC DATE: 200103

CLEANUP STRATEGY

Long-term management and cap maintenance will continue. In FY06, USMA will propose to regulators to reduce sampling frequency to every five years. USMA intends to install in FY06 a new leachate collection and treatment system in the form of a phyto-remediation/wetland (funded FY05).

WSTPT-11A
MOTORPOOL EAST LANDFILL

SITE DESCRIPTION

The Motor Pool East Landfill, which was part of the 4 Landfill Investigation Report, is located west of the Motor Pool Maintenance Buildings (Building 793/795). This 1.7-acre landfill was operated from 1964 to 1969 and reportedly received construction and demolition debris on its north side and sanitary waste on its south side.

The landfill was covered and paved in 2002. The site is now used as a parking lot by the Motor Pool. During construction of the cover, a leachate seep was observed emanating from the site. A cap and drainage system improvements were designed, constructed and completed in FY02. The Motor Pool East Landfill has been included in USMA's Sampling and Analysis Plan for LTM and maintenance and groundwater sampling is conducted at this site.

STATUS

REGULATORY DRIVER: RCRA, Subtitle C - HW

RRSE: High

CONTAMINANTS OF CONCERN : Metals

MEDIA OF CONCERN: Groundwater, Surface Water

Phases	Start	End
RFA	199409	199609
RFI/CMS	199409	199812
DES	199709	200108
CMI(C)	200104	200109
LTM	200109	202906

RC DATE: 200109

CLEANUP STRATEGY

Long-term management and cap maintenance will continue. In FY06, USMA will propose to regulators to reduce sampling frequency to every five years.

WSTPT-15B
HIGH SCHOOL LANDFILL

SITE DESCRIPTION

The High School Landfill, which was part of the 10 Landfill Investigation Report, is located on land deeded to the Town of Highlands School District (approximately five miles from the main post); access comes from Morgan Farm Road and Route 9W. The landfill consists of two separate fill areas: (1) the playing field, west of the school building, and (2) the track, southeast of the school building.

Although the landfill is located on land deeded to the Town of Highland Falls School District, USMA as Primary Responsible Party for disposal of waste at the landfill is required to maintain the site in the IRP LTM Program. In FY04, due to settling, half the landfill was brought back up to grade.

STATUS

REGULATORY DRIVER: RCRA, Subtitle C - HW

RRSE: Medium

CONTAMINANTS OF CONCERN : Metals

MEDIA OF CONCERN: Groundwater, Surface Water

Phases	Start	End
RFA	199011	199104
CS	199408	199509
LTM	200109	202906

RC DATE: 199603

CLEANUP STRATEGY

Long-term management and cap maintenance will continue. In FY06, USMA will propose to regulators to reduce sampling frequency to every five years.

WSTPT-16
ORGANIC COMPOST LOT

SITE DESCRIPTION

The Organic Compost Landfill was part of the 6 Landfill Investigation Report and is located northwest of Building 743; access is from Garrard Road. This 0.5 acre landfill was used in the 1960s for disposal of construction debris. More recently, the site had been used for composting of organic material including leaves, mulch, tree limbs and grass cuttings. The landfill is closed and currently used as a lumber storage yard. A leachate tank was installed at the site. The landfill cover was initially tarred and chipped, but was resurfaced in FY05. Although leachate seeps have been identified at this site in the past, recent engineering inspections have detected no seeps.

The Organic Compost Landfill has been included in USMA's Sampling and Analysis Plan for LTM and maintenance and groundwater sampling is conducted at this site.

STATUS

REGULATORY DRIVER: RCRA, Subtitle C - HW

RRSE: High

CONTAMINANTS OF CONCERN : Metals, Nitrates

MEDIA OF CONCERN: Groundwater, Surface Water

Phases	Start	End
RFA	199011	199104
CS	199107	199609
IRA	199103	199103
LTM	200109	202906

RC DATE: 199609

CLEANUP STRATEGY

Long-term management and cap maintenance will continue. In FY06, USMA will propose to regulators to reduce sampling frequency to every five years.

WSTPT-35A
CAMP BUCKNER LANDFILL

SITE DESCRIPTION

The Camp Buckner Landfill was part of the 10 Landfill Investigation Report and is located in the reservation area of the installation, at Camp Buckner. Access is from Patton Road, the main road into Camp Buckner, which intersects with Route 293. This 1.3-acre landfill was used in the 1970s and determined to be composed of construction and demolition debris. There are two small ponds north of the landfill; one is adjacent to the landfill and the other is approximately 150 feet from the landfill. The landfill is closed and covered with packed gravel and stone. The site is now used as a parking lot. In FY04, due to settling, the landfill was brought back up to grade.

The Camp Buckner Landfill has been included in USMA's Sampling and Analysis Plan for LTM and maintenance and groundwater sampling is conducted at this site.

STATUS

REGULATORY DRIVER: RCRA, Subtitle C - HW

RRSE: High

CONTAMINANTS OF CONCERN : Metals

MEDIA OF CONCERN: Groundwater, Surface Water

Phases	Start	End
RFA	199011	199104
CS	199208	199506
RFI/CMS	199604	199912
LTM	200109	202906

RC DATE: 199912

CLEANUP STRATEGY

Long-term management and cap maintenance will continue. In FY06, USMA will propose to regulators to reduce sampling frequency to every five years.

WSTPT-48
BLDG. 706 PARKING LOT LANDFILL

SITE DESCRIPTION

The Bldg. 706 Parking Lot Landfill, was part of the 4 Landfill Investigation Report, is located next to Building 706 (Maintenance Facility); access is from Stony Lonesome Road. The period of usage is unknown but is probably in the 1952-1956 time frame, based on surrounding sites (Michie Stadium Lots A-C). The one-acre landfill is now closed, paved and used as a parking lot. The landfill was resurfaced in FY01. The Bldg. 706 Parking Lot Landfill has been included in USMA's Sampling and Analysis Plan for LTM and maintenance and groundwater sampling is conducted at this site.

STATUS

REGUALTORY DRIVER: RCRA, Subtitle C - HW

RRSE: Medium

CONTAMINANTS OF CONCERN: Metals

MEDIA OF CONCERN: Groundwater, Surface Water

Phases	Start	End
RFA	199409	199609
LTM	200109	202906

RC DATE: 199609

CLEANUP STRATEGY

Long-term management and maintenance will continue. In FY06, USMA will propose to regulators to reduce sampling frequency to every five years. Slope and embankment stabilization is planned for FY06.

IRP No Further Action Sites Summary

AEDB-R #	Site Title	Documentation/Reason for NFA	NFA Date
WSTPT-07B	STADIUM LOT G LANDFILL	LF contains clean construction fill per geotechnical exploration	198412
WSTPT-07C	STADIUM LOT H LANDFILL	LF contains clean construction fill. No cleanup required.	199011
WSTPT-08	PROFESSOR'S ROW LANDFILL	Could not locate site during CS in 1995.	199506
WSTPT-12	SOUTH FILL	No contamination found during CS.	198412
WSTPT-12A	WASHINGTON GATE LANDFILL	No contamination found during RFA.	199810
WSTPT-13	VILLAGE FARM LANDFILL	Contaminated soil removal completed in 1998.	199809
WSPTPT-14	CRAGSTON LANDFILL	Not eligible for ER,A funding.	199104
WSTPT-15A	MORGAN FARM LANDFILL	Site consolidated into WSTPT-14.	199605
WSTPT-23A	HOSPITAL PARKING LOT LANDFILL	LF contains clean construction fill. No cleanup required.	198412
WSTPT-44	SKEET AND TRAP RANGE	Lead contamination remediated by natural attenuation.	199801
WSTPT-45	CROW'S NEST AREA	Drums, tanks and bulk containers removed in 1994.	199404
WSTPT-47	ASP LANDFILL	No contamination found during CS.	199703
WSTPT-49	USTS AT BUILDING 505	UST removal completed in 1994.	199412
WSTPT-50	BLDG 632 NAPTHA TANKS	UST removal completed in 1994.	199409

IRP Schedule

Initiation of IRP: 1991

Past Phase Completion Milestones

1988

• USMA submitted RCRA Part B Application		Nov
• USMA rescinded RCRA Application		Dec

1990

• PA/SI S	WMU Study by USAEHA	Nov

1991

• Phase I RI	6 Landfill Work Plans Issued	Jul
• PA/SI	Crow's Nest Gas Line Survey	Sep

1992

• Phase I RI	Skeet and Trap Range Initiation	Jan
• SI	10 Landfill RFA Initiation	Aug

1993

• Phase II RI	Skeet and Trap Range Initiation	Sep

1994

• RI	Crow's Nest Limited Sweep	May
• IRA	Tank Closures of WSTPT 46&47	May
• Phase I RI	6 Landfill Finalized	Jul
• RFA	4 Landfill RFA Initiation	Sep
• Phase II RI	6 Landfill Award	Sep

1995

•I RA	Rapid Response Contract Award through Omaha District	Sep
• IRA, Phase I RI	10 Landfill RFA Finalized	Jun
• IRA, Phase II RI	Skeet and Trap Range Finalized	Nov

1996

• IRA, RFI	Begin at 10 Landfill	Mar
• DD	Begin at Skeet and Trap Range	Mar
• RD	Begin at Post School	May
• RFA	4 Landfill RFA Finalized	Sep
• Phase II RI 6	Landfill Finalized	Aug
• IRA	Complete at 6 Landfill	Mar
• RD	Begin for Michie Lots C, E, &F	Aug

IRP Schedule

1997		
• DD	Complete at Skeet/Trap Range (WSTPT-44)	Apr
• RFI	Finalize at 10 Landfill	Jun
• CMS	Finalize at Post School (WSTPT-10)	Jul
• CMS	Begin at Motorpool, Motorpool East and Ski Slope LFs (WSTPT-11, 09, 11A)	Sep
1998		
• CMI	Begin at Post School (WSTPT-10)	Mar
• CMS	Complete at Motorpool Landfill	Aug
• IRA	Village Farm Landfill (WSTPT 13)	Nov
1999		
• CMI	Begin at Motorpool Landfill (WSTPT-11)	Feb
• CMI	Begin at Michie Lot Landfills C, E&F	Mar
• CMI	Complete at Motorpool Landfill (WSTPT-11)	Sep
• RFI	Response to Regulators Questions – 10 Landfill Report	Dec
2000		
• CMI	Begin Ski Lot Landfill (WSTPT-09)	Sep
2001		
• CMI	Begin Motorpool East Landfill (WSTPT-11A)	Apr
• CMI	Complete Ski Lot Landfill (WSTPT-09)	Jul
• CMI	Complete at Michie Lot Landfills C, E & F	Jul
• CMI	Complete Motorpool East Landfill (WSTPT-11A)	Sep
• CMI	Begin Michie Lot Landfill A (WSTPT-02)	Sep
• CMI	Begin Michie Lot Landfill B (WSTPT-03)	Sep
• LTM	Sampling and Analysis Plan for LTM & Maintenance	Dec
2002		
• CMI	Complete Michie Lot Landfill A (WSTPT-02)	Jul
• CMI	Complete Michie Lot Landfill B (WSTPT-03)	Jul
2004		
• LTM	Cap Maintenance on Organic Compost Landfill (WSTPT-16)	Sept
• LTM	Cap Maintenance on H,S. Landfill (WSTPT-15B)	Sept.
2005		
• LTM	5 Year Data Evaluation	Aug

Schedule for Next Five-Year Review: 2011

Estimated Completion Date of IRP (including LTM phase): 2029

WEST POINT MILITARY RESERVATION IRP SCHEDULE

(Based on current funding constraints)

AEDB-R#	Phase	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15+
WSTPT-01	LTM									*202906*
WSTPT-02	LTM									*202906*
WSTPT-03	LTM									*202906*
WSTPT-04	LTM									*202906*
WSTPT-05	LTM									*202906*
WSTPT-06	LTM									*202906*
WSTPT-07A	LTM									*202906*
WSTPT-09	LTM									*202906*
WSTPT-10	LTM									*202906*
WSTPT-11	LTM									*202906*
WSTPT-11A	LTM									*202906*
WSTPT-15B	LTM									*202906*
WSTPT-16	LTM									*202906*
WSTPT-35A	LTM									*202906*
WSTPT-48	LTM									*202906*

Prior Years Funds

Total Funding up to FY04: $15,396K

Year	Site Information	Expenditures	FY Total
FY05	WSTPT-01 (LTM)	$ 4K	
	WSTPT-02 (LTM)	$ 7K	
	WSTPT-03 (LTM)	$ 4K	
	WSTPT-04 (LTM)	$17K	
	WSTPT-05 (LTM)	$17K	
	WSTPT-06 (LTM)	$22K	
	WSTPT-07A (LTM)	$22K	
	WSTPT-09 (LTM)	$34K	
	WSTPT-10 (LTM)	$21K	
	WSTPT-11 (LTM)	$50K	
	WSTPT-11A (LTM)	$ 4K	
	WSTPT-15B (LTM)	$ 4K	
	WSTPT-16 (LTM)	$ 4K	
	WSTPT-35A (LTM)	$ 7K	
	WSTPT-48 (LTM)	$14K	**$231K**

Total Prior Year Funds (through FY05): **$15,627K**

Current Year Requirements

Year	Site Information	Requirements	FY Total
FY06	All sites - LTM	$261K	**$261K**

Total Future Requirements: **$8,609K**

Total IR Program Cost *(from inception to completion of the IRP):* **$24,497K**

WEST POINT MILITARY RESERVATION

Military Munitions Response Program

MMRP Summary

Total AEDB-R MMRP Sites/AEDB-R sites with Response Complete: 12/5

AEDB-R Site Types
10 Unexploded Munitions/Ordnance
2 Small Arms Ranges

Most Widespread Contaminants of Concern: MEC, MC

Media of Concern: Soil

Completed REM/IRA/RA: None

Total MMRP Funding

Prior years (up to FY05):	$ 474K
Current Year (FY06):	$ 0
Future Requirements (FY07+):	$16,088K
Total:	**$16,562K**

Duration of MMRP
Year of MMRP Inception: 2002
Year of MMRP RC: 2014
Year of MMRP Completion (Including LTM): 2047

MMRP Contamination Assessment

MMRP Contamination Assessment Overview

The Phase 3 Army Range Inventory was completed at USMA in FY03. The inventory identified twelve sites as eligible for the MMRP. The Phase 3 Inventory serves as the Preliminary Assessment under CERCLA. Site Inspections began in May 2004.

MMRP Cleanup Exit Strategy

The installation plans to complete all SIs by August 2006 and execute follow-on phases/actions as required in the individual site cleanup strategies.

2003

Phase 3 Army Closed, Transferred & Transferred Ranges/Sites Inventory for West Point Military Reservation.

WEST POINT MILITARY RESERVATION

Military Munitions Response Program

Site Descriptions

WSTPT-001-R-01
ARTILLERY FIRING RANGE

SITE DESCRIPTION

This range is made up of three firing ranges: Sacred Heart Cemetery Range, Silver Depository Range, and Adolph's Pond Range. The ranges were used for practice firing of 75mm rounds beginning in 1909 and continuing until the late 1930s. Most firing was aimed toward Crows Nest. The firing points are located to the southwest of the main campus. The range fan extends from the firing points into Crows Nest. The Artillery Firing Range fan also falls upon an area that may include an impact area for munitions from a second source: a cannon and projectile foundry located at Cold Spring. The Artillery Firing Range covers an area located directly north of an elementary school building. The elementary school was constructed in 1934 and construction of the West Point School Gym, which is currently underway, was started in 2002. Parrott rounds have been discovered, probably fired from the Cold Spring Foundry or from the south, on-post Civil War era artillery ranges. The total area of this closed range is 171 acres. Recovered items from an intrusive investigation of this area conducted during an Engineering Evaluation/Cost Analysis in July 2002, included UXO, OE scrap, and non-OE scrap. Items found included 75mm projectiles, six-inch MK 34 projectiles, 16 inch cannon balls, inert PTTF 1907-M fuses, 75mm HE and ejection rounds and fuses.

STATUS

REGULATORY DRIVER: CERCLA

RAC SCORE: High Risk

CONTAMINANTS OF CONCERN: MEC, MC

MEDIA OF CONCERN: Soil

Phases	Start	End
PA	200212	200308
SI	200405	200608
RI/FS	200810	200909
RD	200910	201004
RA(C)	201005	201109
LTM	201710	204709

RC DATE: 201109

CLEANUP STRATEGY

Site investigation is underway and will determine strategy/remediation (funded FY05).

WSTPT-003-R-01
BATTERY KNOX

SITE DESCRIPTION

This battery was established sometime between 1836 and 1860. It was located on property that is now a parking lot between Lincoln Hall (Building 607) and Building 609. Battery Knox is located on the shore of the Hudson River and fired to the southeast across the Hudson River. Battery Knox encompasses 6 acres on the West Point reservation, this battery contained six gun positions and ammunitions magazines. The original armament of Battery Knox is unknown, however, during the Civil War era, four 10" Rodman Rifles on coastal carriages were installed at the Battery for training purposes and used during the war. Practice firings were conducted from Battery Knox, and ammunition was stored there. A salute was fired from Battery Knox commemorating the surrender of General Lee's Army at Appomattox on April 10, 1865. When the Rodman cannon became outdated they were retained at Battery Knox, and the Battery apparently became a "ceremonial" or "salute" battery. Battery Knox was demolished sometime during the World War II era. It was used until around 1940. Three of the cannons remain on their siege carriages at USMA (located near the Ordnance Compound) under the Stewardship of the West Point Museum, and one cannon was transferred to the US National Park Service and is currently located at Fort Point in San Francisco. There have not been any documented UXO findings or UXO responses in this area.

STATUS

REGULATORY DRIVER: CERCLA

RAC SCORE: Serious Risk

CONTAMINANTS OF CONCERN: MEC, MC

MEDIA OF CONCERN: Soil

Phases	Start	End
PA	200212	200308
SI	200405	200608
RI/FS	200810	201109

RC DATE: 201109

CLEANUP STRATEGY

Site investigation is underway and will determine strategy/remediation (funded FY05).

WSTPT-008-R-01
FORT CLINTON

SITE DESCRIPTION

Fort Clinton (known as Fort Arnold prior to Arnold's treason in September 1780) was constructed in 1778 on the eastern periphery of USMA. A September 5, 1780 report stated that Fort Arnold contained one brass four-pounder on a traveling carriage and 11 brass mortars of various sizes, one iron 24-pounder on a garrison carriage, six iron 18-pounders on garrison carriages, and one iron 12-pounder on a stocked (field) carriage. All of the river batteries would have contained an immediately available supply of ammunition. These batteries did not fire a shot during wartime, however practice firings were routinely performed. This defensive position was abandoned at the end of the Revolutionary War. The fort was then renamed to Fort Clinton.

STATUS

REGULATORY DRIVER: CERCLA

RAC SCORE: Serious Risk

CONTAMINANTS OF CONCERN: MEC, MC

MEDIA OF CONCERN: Soil

Phases	Start	End
PA	200212	200308
SI	200405	200608
RI/FS	200810	201009

RC DATE: 201009

During later years, Fort Clinton, also known as Camp Clinton, was used for the practice firing of 75 mm guns at Crows Nest (FUDS). Firing practice from Fort Clinton occurred from the mid 1800s until 1927. Fort Clinton is located in the central portion of the campus along the Hudson River shoreline. The battery was used for training and fired to the northeast across the Hudson River through the 1830s. The portion of the Fort Clinton firing fan that is not overlapped by Siege Battery is 27 acres. The battery no longer exists except for a short segment of the eastern parapet wall that survives today. The site, as of 1927, became a monument and historic landscape. There have not been any documented UXO responses in this area.

CLEANUP STRATEGY

Site investigation is underway and will determine strategy/remediation (funded FY05).

WSTPT-011-R-01
NORTH ATHLETIC FIELD

SITE DESCRIPTION

The North Athletic Field site was constructed from fill from Target Hill and therefore could contain ordnance that was fired into the hill from the early 1900s until the late 1930s. Target Hill was also a target for artillery fired from Cold Spring Foundry. In 1937 the Army Athletic Association started the project of building/expanding athletic fields. By removing Target Hill, the dirt could be used to fill out toward the river and create necessary fields. The removal was started in 1944, and was completed in 1945. As a result, approximately 60,000 square yards of level ground were added to the North Athletic Field. The site of the athletic field prior to 1944 was used for recreational purposes and was not the site of artillery firing. The Athletic field is located along the shore of the Hudson River. It is within the central campus area of the USMA. The athletic field is 14 acres. There have not been any documented UXO findings or UXO responses in this area.

STATUS

REGULATORY DRIVER: CERCLA

RAC SCORE: Serious Risk

CONTAMINANTS OF CONCERN: MEC, MC

MEDIA OF CONCERN: Soil

Phases	Start	End
PA	200212	200308
SI	200405	200608
RI/FS	200810	201009

RC DATE: 201009

CLEANUP STRATEGY

Site investigation is underway and will determine strategy/remediation (funded FY05).

WSTPT-012-R-01
POST OUTDOOR PISTOL RANGE

SITE DESCRIPTION

This pistol range was a training and practice area for .45 cal pistols. Firing occurred here from 1930 until 1960. The range had 15, 25, and 50-yard firing lines. The range danger area was the "fenced area between Pipeline Trail and Michie Trail". It was built in the early 1930s and remained in existence until around 1953. The outdoor pistol range is located in the central portion of the installation, to the south of the main campus area. It is located nearly ¾ of a mile inland from the Hudson River. The Post Outdoor Pistol range covers 22 acres of land within the installation boundaries and is currently undeveloped. The Post Outdoor Pistol Range is slightly overlapped by operational range area. The firing point and the berm were located within the closed range area. There have not been any documented UXO findings or UXO responses in this area.

STATUS

REGULATORY DRIVER: CERCLA

RAC SCORE: Negligible Risk

CONTAMINANTS OF CONCERN: MC

MEDIA OF CONCERN: Soil

Phases	Start	End
PA	200212	200308
SI	200405	200608
RI/FS	200810	201009
RD	201110	201204
RA(C)	201205	201309

RC DATE: 201409

CLEANUP STRATEGY

Site investigation is underway and will determine strategy/remediation (funded FY05).

WSTPT-015-R-01
SEIGE BATTERY

SITE DESCRIPTION

Siege Battery was constructed sometime between 1836 and 1860 on the site of Battery Sherburne, at what today is called Trophy Point. The original Battery Sherburne was built in 1778, and contained two iron six-pounders on garrison carriages, and eight iron six-pounders on stocked or field carriages. Six-pounders are solid metal artillery pieces that do not contain any explosive material. Construction of Siege Battery is believed to have destroyed all traces of the Battery Sherburne. The Siege Battery contained a north and south battery. The north battery was used for various mortars, and the south battery was used for coastal artillery pieces. Practice firing occurred here from 1846 until 1940. During the latter part of the 19th century, the north Siege battery was renamed Battery Schofield. Training in the use of Parrott rifles was conducted at Battery Schofield. Around 1900, two six-inch disappearing coastal defense batteries were added to Battery Schofield. Live ammunition is known to have been stored at Battery Schofield. Sometime during the World War II era Battery Schofield was demolished and the guns were given to a scrap drive. No traces of Siege Battery survive, but the locations of the two six-inch disappearing carriage guns are prominent east of Trophy Point. Siege Battery and its associated firing fan cover 179 acres within installation boundaries. A portion of the Siege Battery firing fan overlaps the firing fans of Seacoast Battery and Fort Clinton. Research and actual investigation results, prepared under the FUDS program, were used to determine the extent of range fans. A large portion of the area is currently used for historic monuments. There have not been any documented UXO findings or UXO responses in this area.

STATUS

REGULATORY DRIVER: CERCLA

RAC SCORE: Serious Risk

CONTAMINANTS OF CONCERN: MEC, MC

MEDIA OF CONCERN: Soil

Phases	Start	End
PA	200212	200308
SI	200405	200608
RI/FS	200810	201009

RC DATE: 201009

CLEANUP STRATEGY

Site investigation is underway and will determine strategy/remediation (funded FY05).

WSTPT-017-R-01
TARGET HILL

SITE DESCRIPTION

The Target Hill was used by cadets firing short-range artillery into the hill from the early 1900s until the late 1930s. It was also used for artillery fired from Cold Spring Foundry. It began being used as a firing target in 1812 and continued to be used until the 1930s. In 1940, a proposal came to remove this Target Hill and use the removed soil to construct needed athletic fields, the construction and excavation began in 1944. It is possible, however, that there are munitions related materials in the surrounding area that were not removed when the North Athletic Field excavation occurred. The target hill is located to the north of the Athletic Field within the main campus area, and is along the Hudson River shore. It covers 14 acres within installation boundaries. No records exist of any findings that occurred during the excavation. Since that time there have not been any documented UXO findings or UXO responses in this area.

STATUS

REGULATORY DRIVER: CERCLA

RAC SCORE: High Risk

CONTAMINANTS OF CONCERN: MEC, MC

MEDIA OF CONCERN: Soil

Phases	Start	End
PA	200212	200308
SI	200405	200608
RI/FS	200810	201009
RD	201110	201204
RA(C)	201205	201309
LTM	201710	204709

RC DATE: 201409

CLEANUP STRATEGY

Site investigation is underway and will determine strategy/remediation (funded FY05).

MMRP No Further Action Sites Summary

AEDB-R #	Site Title	Documentation/Reason for NFA	NFA Date
WSTPT-004-R-01	BATTERY KNOX-TD	No contamination was found during the SI.	200608
WSTPT-007-R-01	BUFFALO SOLDIER FIELD	No contamination was found during the SI.	200608
WSTPT-010-R-01	GREY GHOST HOUSING AREA	No contamination was found during the SI.	200608
WSTPT-013-R-01	SEACOAST BATTERY	No contamination was found during the SI.	200608
WSTPT-016-R-01	SIEGE BATTERY-TD	No contamination was found during the SI.	200608

MMRP Schedule

Initiation of MMRP: 2002

Projected ROD/DD Approval Dates: 2011

Projected Construction Completion: 2013

Schedule for Five Year Reviews: To be determined

Estimated Completion Date of MMRP (including LTM): 2047

WEST POINT MILITARY RESERVATION MMRP SCHEDULE

(Based on current funding constraints)

AEDB-R#	Phase	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15+
WSTPT-001-R-01	RI/FS									
	RD									
	RA(C)									
	LTM									*204709*
WSTPT-003-R-01	RI/FS									
WSPTP-008-R-01	RI/FS									
WSPTP-011-R-01	RI/FS									
WSPTP-012-R-01	RI/FS									
	RD									
	RA(C)									
WSPTP-015-R-01	RI/FS									
WSPTP-017-R-01	RI/FS									
	RD									
	RA(C)									
	LTM									*204709*

Prior Years Funds

Total Funding up to FY04: $72K

Year	Site Information	Expenditures	FY Total
FY05	SI – All sites	$402K	**$402K**

Total Prior Year Funds: **$474K**

Current Year Requirements

Year	Site Information	Requirements	FY Total
FY06		$0	**$0**

Total Future Requirements: **$16,088K**

Total MMR Program Cost *(from inception to completion of the MMRP):* **$16,562K**

Community Involvement

The USMA has a relatively small installation restoration program without significant issues that warrant the establishment of a RAB. The West Point community consists of approximately 10,000 military personnel and their family members, civilian personnel, and cadets. The Town of Highlands, which adjoins West Point to the south, has a population of 13,600.

During the investigation phase of an off-post landfill on the Village of Highland Falls property, initial communication led to a project briefing to the school board concerning the impact on O'Neill High School. The presentation offered the reasons for performing the investigation, described the field techniques and addressed the board members' questions and concerns. The presentation was well received and established an excellent working relationship with the school board. Notification to the school board of subsequent remedial activities was provided through telephone calls, information papers and informal meetings.

A Community Relations Council has been formalized where any future planned remedial actions can be presented. The Engineering/Public Works Subcommittee of the Community Relations Council is chaired by the USMA Director of Public Works and consists of local village and town officials, town historian and interested citizens. This committee provides the ideal forum for representing planned remedial activities, which could affect the community without establishing a RAB.

On post, West Point has established residential Mayor's Meetings. Each residential area has an elected mayor who represents that community's interest and conveys its concerns to local command. These community meetings also provide an excellent forum to present and discuss future remedial activities that may affect the local community. The availability of these two operating public forums and the limited remedial actions planned at USMA limit the need to establish a RAB at West Point.